



Medical School Hotline

Emergency Medicine in the Problem-Based Learning Curriculum

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Since being officially recognized in 1979, Emergency Medicine is a growing medical specialty. Currently, over 100 Emergency Medicine residency programs across the United States graduate 800 residents annually, and almost 11,000 physicians are certified by the American Board of Emergency Medicine. Each year, two or three graduates of the JABSOM choose to enter Emergency Medicine.

The American College of Emergency Physicians (ACEP) believes that all medical students should be taught the basics of emergency medical care and that the public expects all medical students to be able to provide basic emergency medical care. The ACEP further believes that this can be accomplished by incorporating five essential topics of emergency medicine into existing curricula:¹

- Assessment of the undifferentiated patient
- Basic life support skills, including CPR
- Recognition and treatment of shock from all causes and in all age groups
- Basic procedural skills, such as airway management and venous access
- Differentiation of the acutely ill or injured patient and early management

The first two years of the John A. Burns School of Medicine (JABSOM) Problem-Based Learning (PBL) curriculum is unique, because the learning of basic and clinical science is largely self-directed and integrated around clinical health care problems (HCPs). In their first month of medical school, students at the JABSOM investigate many of the themes above. One of the first HCPs involves a 17 year-old high school student who suffers chest trauma in an automobile accident involving alcohol. At the Emergency Room (ER), the student learns that the patient's heart rate is high and blood pressure is low. Learning issues identified by students related to this HCP have included: the ABCs of trauma assessment, hypovolemic shock, management essentials for pneumothorax, essentials of managing thoracic trauma, the role of paramedics and Emergency Medical Technicians, and the emergency medical system. Students have investigated establishing rapport with adolescents, the medical interview in trauma cases, and how physicians provide reassurance to patients in the ER.² The self-generated learning issues above are in addition to basic issues about the

anatomy of the thorax, normal respiratory mechanics, hemodynamics, hemostasis, shock, and the pathophysiology of pneumothorax, among others.

A novel case is an 81 yr-old woman brought to the ER by a public health nurse. The nurse finds the elderly woman at home with ants, cockroaches and garbage strewn over the living room. There are no clean dishes, no soap, and the woman had been sleeping on a sofa blood-tinged from an open lesion on her back. Another case is a 32 yr-old homeless schizophrenic male who is treated in the ER for open sores on the foot and spreading cellulitis. These HCPs, among others, introduce the JABSOM student to growing use of the ER as a health care safety net. Today, the ER may be the principal provider of primary care to the poor, homeless, unemployed, substance abuser, elderly, and many others who have no regular source of health care. This emerging role of the ER physician stems from the Consolidated Omnibus Reconciliation Act (COBRA) of 1986, which mandates that any patient who presents to the hospital emergency department must be treated regardless of the diagnosis or ability to pay.

Survey of the 75 HCPs that medical students investigate during their first two years at the JABSOM reveals that 17 HCPs (22%) contain issues, in part, that introduce the student to the role of the ER in the health care system. The allure of emergency medicine as a growing medical specialty is due to a number of reasons, including the versatility of needed skills, the split-second decision-making required, the intensity, and the flexibility of 12-hour shifts.³ It may be also true that at the JABSOM, the PBL curriculum depicts the ER physician as a provider of both acute and primary care. The ER physician is challenged to respond both to life-threatening conditions as well as the public health needs of those who have no other regular source of health care. The latter may also help influence JABSOM graduates to enter this growing medical specialty.

References

1. American College of Emergency Physicians: Guidelines for undergraduate in emergency medicine. 1997. *Ann. Emerg. Med.* 29:835.
2. Since learning is student-centered and self-directed, the Office of Medical Education in the JABSOM supports curriculum planners by tracking what students decide to study. Faculty can then influence what students study in subsequent years by writing learning cues and prompts into HCPs.
3. Gillespie, K.B. 1997. Life in the ER: On the front line of medicine. 1997. *N-J Med* 94:29-32.



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